

WP 05-WH1401

Revision 13

6-Ton Electric Forklift 74-H-010B and 41-H-013

Technical Procedure

EFFECTIVE DATE: 11/14/19

Gary Chism
APPROVED FOR USE

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CHANGE HISTORY SUMMARY

REVISION NUMBER	DATE ISSUED	DESCRIPTION OF CHANGES
12	04/03/19	<ul style="list-style-type: none">• Added new JHA Precautions.• Added Purpose and Scope.• Added Acronyms.• Added HWFP banner to cover page.
13	11/14/19	Minor change. <ul style="list-style-type: none">• Added Precaution, bullet 7.

1.0 INTRODUCTION

1.1 PURPOSE

This procedure provides requirements for preoperational checks and battery charging of the 6-Ton Electric Forklifts 74-H-010B and 41-H-013.

Performance of this procedure, or selected sections of the procedure, implements inspection requirements of the HWFP relative to the scope of, and as defined in, this document. Unless otherwise noted, this procedure is performed by Waste Handling personnel.

1.2 SCOPE

This procedure specifies HWFP preoperational forklift inspection requirements and provides battery charging instructions.

1.3 RECORDS

Records generated are handled per departmental Records Inventory and Disposition Schedule. Performance of this procedure generates the Equipment Logbook.

2.0 REFERENCES

DOCUMENT NUMBER AND TITLE	BASELINE DOCUMENT	REFERENCED DOCUMENT	KEY STEP
Title 40 CFR §264.15, General Inspection Requirements	✓		
DOE Standard 1090-2011, Hoisting and Rigging	✓		
Hazardous Waste Facility Permit EPA Identification Number NM4890139088-TSDF	✓		\$
74-H-010, Yale Operating Instructions	✓		
DOE/WIPP-07-3372, Waste Isolation Pilot Plant Documented Safety Analysis	✓		
DOE/WIPP-07-3373, Waste Isolation Pilot Plant Technical Safety Requirements	✓		
WP 04-AD3011, Equipment Lockout/Tagout	✓		
WP 04-AD3016, Equipment Out of Service Process		✓	
WP 10-WC3011, Work Control Process	✓		
WP 15-GM1002, Issues Management Processing of WIPP Forms		✓	
EA10WC3011-18-0, Action Request	✓		
05-WH1401-JHA, General forklift operations in the CH Bay and PAU	✓		

2.1 ACRONYMS AND ABBREVIATIONS

AR	action request
CFR	Code of Federal Regulations
CH	contact-handled
CMRO	Central Monitoring Room Operator
DOE	U. S. Department of Energy
EPA	U. S. Environmental Protection Agency
HWFP	Hazardous Waste Facility Permit
lbs.	pounds
LCD	Liquid Crystal Display
OOS	Out of Service
PAU	Parking Area Unit

CONTINUOUS USE

RWP	Radiological Work Permit
SAT	Satisfactory
SEC	Site Environmental Compliance
SWB	Standard Waste Box
TSDF	Treatment, Storage, and Disposal Facility
WHE	Waste Handling Engineer
WIPP	Waste Isolation Pilot Plant

3.0 PRECAUTIONS AND LIMITATIONS

3.1 PRECAUTIONS

- Eye, foot, head, and hand hazards exist during general operations. Personnel are to wear hard hat, safety glasses with side shields, and safety/hard toed shoes. Personnel are to keep all body parts inside forklift during operations.
- Forklift hazards exist while spotting heavy equipment. Personnel are to obey postings and barricades, wear a high visibility vest or gloves, use a designated spotter, and travel on suitable surfaces.
- Moving/falling objects hazards exist during general operations and spotting. Personnel are to stand clear of loads.
- Pinch point hazards exist during general operations and when placing legs on supersack racks. Personnel are to wear leather (mechanics) gloves and maintain situational awareness of placement of extremities.
- Slips/trips hazards exist during general operations and inspections. Personnel are to use handholds and maintain situational awareness and good housekeeping.
- If forklift battery charge indicator indicates battery is at full charge, additional charging may cause damage to the battery or charger.
- Lack of ventilation hazards exist when charging batteries. Personnel are to verify ventilation is operable.

3.2 LIMITATIONS

- Section 5.1, Preoperational Checks, and Section 5.2, Battery Charging, can be performed independently.
- The rated load carrying capacities of the 74-H010B forklift must not exceed:
 - Forks: 13,500 lbs at 24-inch load center
 - Brudi: 7,500 lbs at 33-inch load center
 - SWB Forklift Attachment: 4,000 lbs at 27-inch load center
 - Drum Handler: 4,000 lbs at 60-inch load center
- The rated load carrying capacities of the 41-H-013 forklift must not exceed:
 - Short Forks: 11,500 lbs at 24-inch load center
 - Brudi: 7,500 lbs at 33-inch load center
 - SWB Forklift Attachment: 4,000 lbs at 27-inch load center
 - Drum Handler: 4,000 lbs at 57-inch load center
- Carrying passengers is prohibited.
- The battery charger must be allowed to complete a charge cycle except in emergency situations.

4.0 PREREQUISITE ACTIONS

- 4.1 **REVIEW** Equipment Logbook for outstanding deficiencies and ARs.

5.0 PERFORMANCE

5.1 PREOPERATIONAL CHECKS

5.1.1 **IF** disconnecting the forklift battery from the battery charger during charging mode,
THEN the STOP button must be pushed before disconnecting to avoid equipment damage.

5.1.2 **IF** forklift battery is charged **AND** still on a battery charger,
THEN PERFORM the following to disconnect forklift from charger:

[A] **ENSURE** battery charger is OFF.

[B] **DISCONNECT** battery charger power cable from battery power plugs.

[C] **CONNECT** battery power plugs to forklift power plugs.

[D] **RECORD** the following in the Equipment Logbook:

- Name of person removing forklift from charger
- Date and time it was removed

HWFP

5.1.3 **(\$)** Prior to forklift operation at beginning of each shift,
COMPLETE Attachment 1, 6-Ton Electric Forklift 74-H-010B and 41-H-013 Preoperational Checks. **[HWFP Table E-1]**

5.1.4 **NOTIFY** WHE of operational status and deficiencies discovered and status of each.

[A] **IF** deficiencies cannot be corrected when discovered,
THEN INITIATE AR.

NOTE

LCD screen on 41-H-013 will display the truck hour meter and the pump hour meter for five seconds after the key is turned to the OFF position.

HWFP

5.1.5 **(\$)** **RECORD** the following information in Equipment Logbook:
[HWFP Table E-1]

- Deficiencies found
- Procedure number
- Equipment number
- Hour meter reading
- Check SAT or Problems Noted
- AR(s), if newly initiated or outstanding
- Date, time, and signature to document performance of preoperational check

5.1.6 **IF** a HWFP required inspection becomes delinquent or failed
THEN PERFORM the following:

[A] Immediately **NOTIFY** on-call SEC Representative and CMRO of delinquent or failed inspection.

[B] **RESCHEDULE** and **COMPLETE** required inspection.

[C] **DOCUMENT** the following, and submit to PermitInspections@wipp.ws within five working days:

- Inspection document number
- Description of facility, equipment involved
- Schedule for inspection
- Reason(s) why inspection was not performed or failed
- Compensatory measures taken to offset negative impacts from not performing the inspection or equipment not providing its intended function
- Actions to prevent further delinquencies

[D] WHE, **GO TO** WP 15-GM1002, Issues Management Processing of WIPP Forms, and **ENSURE** a WIPP form is generated.

5.2 BATTERY CHARGING

- 5.2.1 **IF** forklift battery charge indicator shows low charge,
THEN CHARGE battery before use.
- 5.2.2 **ENSURE** CHARGE CONTROL on battery charger is OFF.
- 5.2.3 **DISCONNECT** battery power plugs from forklift.
- 5.2.4 **CONNECT** battery power plugs to battery charger power plugs.
- 5.2.5 **IF** performing equalizing battery charge,
THEN PRESS EQUALIZING BATTERY CHARGE button on
battery charger.
- 5.2.6 **ENSURE** battery charger ON light is illuminated.
- 5.2.7 **RECORD** the following in the Equipment Logbook:
 - Name of person placing forklift on charge
 - Date and time charge was initiated
 - Type of charge performed (normal or equalizing)

HWFP (\$) Attachment 1 – 6-Ton Electric Forklift 74-H-010B and 41-H-013 Preoperational Checks [HWFP Table E-1]

CAUTION

Unusual noises upon startup must be investigated immediately.

INSPECTION	CRITERIA	SAT	UNSAT	NA
General Condition Checks	Visually INSPECT for damage that may impact operability	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	NO loose parts	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	NO oil leaks, if leak is identified, refer to Attachment 2	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	NO deterioration/damage which includes visible cracks, erosion, salt build-up, corrosion, malfunctions, and structural deterioration	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	ENSURE Grounding strap attached	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Tires/Wheels/ Brakes	ENSURE tires are in good condition; not excessively worn or cracked	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	ENSURE accessible wheel lugs installed and tightened per torque indicators	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	ENSURE brake pedal has 2 - 3 inches of free play felt by hand	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	ENSURE brake pedal is not springy or spongy and does not stick or bind when pressed	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	ENSURE parking brake does not bind when set or released	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Battery Compartment	NO acid spills or leaks	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	NO loose or missing caps or cables	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	NO worn or bare cables	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Fire Extinguisher	ENSURE inspection is up to date and charged	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Hydraulic System	ENSURE reservoir level is above the LOW mark – check with forks or attachments lowered to the floor	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	NO excessive leaks from hoses, couplings, or fittings, if leak is identified, refer to Attachment 2, Leak Categorization	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Upright and Lift Chains	NO obvious wear, damage, or missing parts	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	NO slack or broken chains	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Forks/ Attachments	NO obvious cracks, breaks, bends, twists, or wear	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	ENSURE forks are correctly installed and locked in the proper position	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	NO obvious cracks, breaks, bends, twists, or wear to SWB Attachment, if attached	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	ENSURE SWB Attachment properly secured to forklift, if attached	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	NO obvious cracks, breaks, bends, twists, or wear to Brudi Push/Pull Attachment, if attached	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	ENSURE Brudi Push/Pull Attachment hydraulic hoses are not crushed, damaged, or leaking, if attached	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	ENSURE Brudi Push/Pull Attachment properly secured to forklift, if attached	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	NO obvious cracks, breaks, bends, twists, or wear to drum handler, if attached	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	ENSURE drum handler safety chain is installed around load backrest, if attached	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

HWFP (\$) Attachment 1 – 6-Ton Electric Forklift 74-H-010B and 41-H-013 Preoperational Checks [HWFP Table E-1]

INSPECTION	CRITERIA	SAT	UNSAT	NA
Forklift Start / Operating Checks	ENSURE seat belt is in good condition; fastens and adjusts correctly	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	ENSURE seat adjusts for easy access to controls	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	ENSURE seat locking mechanism locks	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	ENSURE steering wheel tilts for easy access to controls	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	ENSURE all control levers are in NEUTRAL	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	PRESS service brake pedal	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	START forklift	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	ENSURE horn sounds	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	ENSURE front lights illuminate	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	ENSURE back lights illuminate, if equipped	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	ENSURE hoist control raises and lowers forks/attachment	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	ENSURE tilt control tilts forks/attachment forward and backward	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	ENSURE side shift control operates forks left and right	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	ENSURE fork position control operates forks in and out	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	ENSURE fixture retracts and extends Brudi clamping device, if attached	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Brakes / Operating Checks	RAISE forks 6-10 inches above the floor	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	ENGAGE the parking brake	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	RELEASE service brake pedal	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	ATTEMPT to move forklift forward and backward ensuring forklift does not move in either direction	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	RELEASE the parking brake	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	SELECT direction to travel using directional control lever	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	PRESS accelerator pedal and move forklift	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	ENSURE forklift steering operates smoothly and does not pull right or left	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	ENSURE brakes are in good condition and do not drag	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	ENSURE backup alarm operates while moving in reverse	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	ENSURE seat brake engages when operator rises from seat	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	ENSURE brake lights illuminate when pedal is pushed, if equipped	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	STOP forklift	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	SET parking brake	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Attachment 2 – Leak Categorization

	TYPE 0	TYPE 1	TYPE 2	TYPE 3	TYPE 4
Indications:	No indications of moisture—dry	Dampness around hoses or engine compartments, including oil sheen	Dripping from a hose	Spraying from a hose or oil running down firewall, etc.	Ruptured hose (e.g., oil line, fuel line)
Status	Operational		DO NOT OPERATE		
Required Actions:	None	RECORD leak Type 1 and the source of the leak in equipment specific Logbook	[A] TAG equipment OOS with an OOS Tag per WP 04-AD3016, Equipment Out of Service Process [B] SUBMIT AR for repairs [C] RECORD leak type and AR number in equipment specific Logbook [D] WHEN repairs and cleanup are completed, the equipment can be put back into service		